

# Goats – Technical Note

## Johne's Disease in Goats

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Johne's disease, sometimes referred to as paratuberculosis, is a highly infectious disease that is caused by a bacteria that lives in the digestive tract of infected animals. The bacteria cause inflammation in the gut and reduce the absorption of nutrients, leading to a progressive wasting of the animal, eventually resulting in a characteristic, highly emaciated appearance. It is present at some level in most commercial goat populations including Ireland and can result in substantial milk yield reduction and income loss.

### Symptoms

- Progressive weight loss;
- Lethargy;
- Appetite is initially unaffected but reduces over time;
- Rough coat and skin can have a flaked appearance.

It is important to remember that unlike in bovines, diarrhoea is not typically a symptom in goats.

### Infection & Transmission

The disease usually enters a herd through contact with infected stock. An infected animal will shed the bacteria, primarily in its faeces, and contaminates the environment. Other animals then ingest the bacteria and become infected. The incubation period is at least 6 months and disease is rarely seen before 12 months of age. Usually an animal will be shedding bacteria for a substantial period of time before displaying the classic wasting

appearance. Infection in a herd is sometimes referred to as 'Johne's Iceberg' in that there may be some animals showing obvious clinical signs of infection, but a substantially greater number either infected or shedding bacteria into the goat environment. In most cases animals become infected as kids. The disease can also be transmitted through colostrum and milk (including between species) and can be passed from doe to kid in utero.

### Diagnosis

A number of laboratories in Ireland provide testing services to determine the level of Johne's present in a goat herd and identify infected animals. This is typically done through the detection of antibodies in milk and blood. It can be a challenging disease to diagnose depending on the stage of infection.

### Treatment & Control

There is no treatment for Johne's disease. There is also a vaccine available internationally but it is not licenced for use in the Ireland. Therefore control is the best means of minimising infection. There are a number of effective control measures:

#### **1. Maintain a closed herd**

This eliminates the introduction of the disease through infected stock.

## **2. Identify and cull infected animals**

Rigorous testing and culling removes all animals that are shedding the bacteria into the environment.

## **3. Quarantine**

If animals are to be introduced from another herd, they should be quarantined for several weeks while tests are done.

## **4. Hygiene**

Maintaining a clean environment for goats, particularly kids, will greatly reduce the level of faecal contamination and resultant infection pressure. Ensuring troughs and drinkers are clean will reduce the intake of bacteria. Clean bedding also reduces faecal contamination of teats while does are suckling kids. Many herds in Ireland are on a deep bedding housing system; therefore the regular addition of clean straw is essential. Increasing the area allocated per animal will also reduce soiling levels.

## **5. Don't share Colostrum or milk**

Minimise sharing of colostrum where possible and never share colostrum or milk where a doe shows signs of the disease. Also don't use cow's milk for feeding kids unless you can be sure it's coming from a clean herd.

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